

Farmed Deer and Elk in North Dakota



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North Dakota has more than 100 operations where elk and deer are raised.

Questions & Answers About the Farmed Cervid Industry with State Veterinarian Dr. Susan Keller

Editor's Note: The June 2004 issue of this magazine carried an interview with Dr. Valerius Geist, an internationally renowned big game biologist. Part of the interview dealt with the spread of chronic wasting disease in wild deer and elk populations and the role the farmed deer and elk industry may or may not play in introducing, or accelerating the spread of CWD into wild big game populations.

Currently, CWD, a fatal brain disease (also known as a transmissible spongiform encephalopathy), has not been identified in either wild or farmed deer or elk in North Dakota. One of the suspected routes of CWD transmission is from animal-to-animal contact.

While CWD could naturally spread to wild North Dakota deer and elk, the Game and Fish Department is concerned about the potential for introduction via farmed deer and elk. Since the introduction of CWD into a farmed facility in South Dakota in 1997, a number of new rules and regulations have been established to help minimize the risk of CWD getting into North Dakota. Discussions and debates will continue to address ways to reduce potential disease transmissions.

Responsibility for maintaining compliance with domestic and nontraditional livestock regulations lies with the North Dakota Board of Animal Health and the state veterinarian. The North Dakota State Board of Animal Health is comprised of several veterinarians and various livestock industry representatives. They are charged with enforcing animal health regulations.

The Game and Fish Department is also involved because it has management responsibility for wildlife in the state, and part of that responsibility involves issuing permits for private individuals to "propagate, domesticate, or possess" live protected birds or animals that are considered wildlife. Game and Fish issues the propagation permits for protected species and the Board of Animal Health is responsible for issuing the nontraditional livestock license for facilities and approving farmed elk facilities.

The Game and Fish Department and Board of Animal Health have a memorandum of understanding that is reviewed and signed each biennium. Through the MOU, Game and Fish provides assistance to implement nontraditional livestock rules. Game and Fish also

provides funds to the BOAH (\$150,000 for the 2003-05 biennium) to assist with administration expenses.

As a followup to the Geist article published in June, *OUTDOORS* is including in this issue the following interview with state veterinarian Dr. Susan Keller.

OUTDOORS: How many farmed cervid (deer and elk family) operations are currently licensed in North Dakota?

Dr. Keller: Currently there are 119 cervid operations licensed in North Dakota: 104 elk, 23 white-tailed deer and seven mule deer. (Several operations are licensed for more than one species.)

OUTDOORS: When did the farmed cervid industry really get established and expand in North Dakota? Is the industry stable, increasing, or decreasing?

Dr. Keller: The farmed cervid industry was established under the North Dakota State Board of Animal Health in 1991. There were farmed elk in North Dakota in the 1970s and farmed white-tailed deer in the 1980s. The elk and the white-tailed deer industries in North Dakota are relatively stable.

OUTDOORS: What significant changes have occurred since the BOAH began oversight of the farmed cervid industry in 1991?

Dr. Keller: The most significant change in the industry occurred with the growing concern over chronic wasting disease, at which time the North Dakota industry supported the implementation of mandatory surveillance for CWD in farmed cervid animals, aged 12 months or older, that die for any reason. As of February 5, 2005, the industry will have participated in the mandatory surveillance for CWD for seven years. Over 2,500 head have been tested for CWD with no positives detected. At the same time the mandatory testing program was initiated, import requirements were changed to include a CWD risk assessment to be approved by the state veterinarian, before farmed cervids can be imported.

The industry also saw changes when it was moved under the Board of Animal Health and had to comply with animal health regulations that weren't imposed under the Game and Fish propagation permit. Also, the restriction on movement of whole carcasses from CWD endemic areas has occurred as the result of a study by Beth Williams and Mike Miller, which found that carcasses may

be a possible source of infection and therefore a cause of disease transmission.

OUTDOORS: Have there been documented cases in the United States or Canada where farmed cervid operations and the associated movement of farmed elk and deer have been the cause of a disease outbreak in wild populations?

Dr. Keller: There have been cases of CWD both in wild cervids and in farmed cervids that have caused concern regarding the possibility of transmission between animal populations. If an industry is participating in a disease control or eradication, it is easier to establish prevalence of disease in animals that are contained versus those that are not. Neither the wild animals nor the farmed animals can exist in a vacuum, so it is important that animal health concerns be addressed in both populations. The relocation of animals should always be done with recognition that the risk of moving disease must be mitigated.

There is also documented movement of animals from research facilities to the western slope of the Rocky Mountains to do grazing competition studies, and that is a possible route of movement of CWD into a formerly nonendemic area. The same research facility also sold animals to farmed elk operations and zoos in the United States and Canada, as well as turning elk and deer that weren't sold back into the wild. CWD has been found in areas of Utah and New Mexico that don't have any farmed cervid operations so the origin of the disease cannot be explained epidemiologically.

OUTDOORS: Has there been any known cases where a farmed deer or elk exposed to CWD or other diseases has been brought into the state? If so, how is this handled? What can be done to prevent this from occurring again?

Dr. Keller: When there is concern that farmed cervids are potentially exposed to CWD, based on epidemiologic information, they are quarantined and the case is investigated. Animals or herds are removed and tested as needed. The only animals to enter North Dakota that tested positive for CWD, were two wild animals that were hunted in other states and brought into North Dakota either as a carcass or as processed meat. The product was properly incinerated and disposed of.

OUTDOORS: What regulations are in place to prevent interaction between wild

and farmed cervids? Are these guidelines effective?

Dr. Keller: North Dakota's fencing requirements call for perimeter fences of at least 12.5 gauge and eight feet high for white-tailed deer and other nontraditional livestock cervids, with mesh of a size to prevent escape and no more than six inches apart. The gates must be secured and posts must be of sufficient strength and height to keep farmed elk securely contained. Elk fence must be seven feet high. There is currently no fence that can prevent all interaction between wildlife and livestock in North Dakota.

OUTDOORS: What happens if a farmed deer or elk escapes? How often does this happen? Have all escaped farmed cervids in recent years been found and collected?

Dr. Keller: Escapes are to be reported to the state veterinarian within one working day. After that, the owner has 10 days to recover the animal. The state veterinarian reports the escaped animal(s) to wildlife officials. If the animal is not recaptured, the state veterinarian can order the animal(s) destroyed, or extend the time if circumstances justify an extension. Knowing the importation requirements and surveillance to which the farmed cervid industry is subject in North Dakota, gives some level of comfort that those animals that escape into the wild are unlikely to carry CWD into the wild with them.

OUTDOORS: What happens if a wild deer or elk gains entry to a farmed cervid facility?

Dr. Keller: There is a constructive possession MOU that explains the process a producer must follow if a wild cervid enters their facility or is inadvertently fenced in. If a wild big game animal gets inside a licensed farmed cervid facility, Game and Fish authorities must be notified and the animal must be euthanized and tested. A concern of producers is that without knowing the incidence or prevalence of CWD in the wild cervid herd, the health status of animals that are under strict surveillance may also be compromised by wild animals that enter their facilities.

OUTDOORS: How does the BOAH monitor farmed cervid health and herd status?

Dr. Keller: First of all, stringent importation and testing requirements must be met. Premises are initially inspected and approved, and followup inspections occur the following year, and then every two years, or

more frequent if warranted. All deaths, births and movements are to be submitted on annual inventory reports.

OUTDOORS: How would you rate farmed cervid industry compliance with Board of Animal Health regulations?

Dr. Keller: Overall, compliance with the farmed elk rules and the nontraditional livestock rules in North Dakota has been good. The industry has been proactive in reacting to CWD, and supportive of regulations to protect the health of their animals and the wildlife of North Dakota. When compliance issues arise, producers can be fined, licenses revoked and/or animals confiscated as defined in the administrative and century code. Appropriate actions have been taken in the past.

OUTDOORS: Do you think it is realistic to be concerned about the farmed cervid industry posing a threat to the state's wild cervids?

Dr. Keller: The cervid animals that are allowed into North Dakota must meet tuberculosis, brucellosis and CWD import requirements, and are examined by a veterinarian who issues a certificate of veterinary inspection. If those animals that come into North Dakota under stringent surveillance requirements should escape, there still is often a great deal more known about their health status than those in the wild, where prevalence testing is difficult to ascertain.

With CWD in the wild to the north and south of us, and other diseases such as

epizootic hemorrhagic disease to the west, the majority of farmed cervid industry producers are very concerned with all disease issues and have supported stringent animal health regulations.

OUTDOORS: Some farmed cervid owners do it for breeding stock, meat, antlers, etc., and others do it for "canned hunts," or allowing paying customers to come inside their fences and shoot an animal. Are there any legal constraints on what can be done with farmed cervids?

Dr. Keller: Farmed cervids in North Dakota are harvested under the same regulations as other livestock in North Dakota, and they fall under the same regulations for humane treatment that protect all domestic and nontraditional livestock in North Dakota.

OUTDOORS: Is there an underground or illegal trade in farmed cervids, and if so, what is the Board of Animal Health's strategy for dealing with it?

Dr. Keller: No, there is no indication of any illegal trade in the farmed cervid industry in North Dakota. Animals moving without a certificate of veterinary inspection or a manifest bill of sale, issued by the State Board of Animal Health, would be in violation of state law. Animals must be appropriately identified and inventoried to move within the state, or between states.

OUTDOORS: In the past 18 months, the BOAH and Game and Fish have been involved in two major deer culling

operations. One involved a farmed deer herd for which the owner did not comply with regulations. The other involved free-roaming wild deer that were enclosed in a fence with farmed elk. Are incidents like these isolated, or will they become more common in the future?

Dr. Keller: The need for confiscation and depopulation of farmed cervids in North Dakota has been rare. However, the Board of Animal Health has enforced regulations when needed, and actions have been supported by the farmed cervid industry as a whole and North Dakota's Game and Fish authorities.

OUTDOORS: When wild deer or elk make contact with farmed deer or elk through fences, the end result is usually a game warden or other official shooting the wild animal to prevent its contact with other wild cervids. Should there be a law that requires double fencing around farmed cervid facilities, which would mostly eliminate the potential for contact between wild and captive animals?

Dr. Keller: The question "who would pay for the double fence?" has been discussed. What if a case of CWD is found in a wild cervid in North Dakota first? Wild cervids that get inside a cervid facility are put down at the request of the Game and Fish Department. The possibility of other nonregulated animals acting as potential vectors in the movement of disease between wildlife and farmed cervids also needs to be recognized.

OUTDOORS: Anything else you would like to add on the subject of farmed cervids, diseases such as CWD and implications to wild cervid health, or anything else on this subject?

Dr. Keller: There has been much discussion surrounding CWD, from where it originally started in this country to how best to prevent introduction of this disease into North Dakota wildlife and the farmed cervid industry. It will require continued vigilance and great cooperation, as has occurred in North Dakota, on the part of industry representatives, producers, wildlife and animal health officials alike, to successfully prevent the introduction of CWD and other diseases. Should CWD or any other reportable disease be diagnosed in this state, the Board of Animal Health and the Game and Fish Department must continue to respond in a unified manner to protect the health of all animals.

In May 2004, the Board of Animal Health and the State Department of Agriculture assisted the Game and Fish Department with an operation that required elimination of some 30 deer that had been enclosed in a fence constructed to house farmed elk.



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